

CLAIMS

1. A two-dimensional image forming apparatus comprising:
  - a light source;
  - a two-dimensional image forming part for forming a two-dimensional image by the light emitted from the light source;
  - an enlarging and projection part for enlarging and projecting the two-dimensional image formed by the two-dimensional image forming part;
  - a light path switching part for switching and selecting a path for the light emitted from the light source, among a first path including both the two-dimensional image forming part and the enlarging and projection part and a second light path which does not include at least one of the two-dimensional image forming part and the enlarging and projection part.
2. The two-dimensional image forming apparatus as defined in Claim 1 wherein
  - the second light path does not include the two-dimensional image forming part.
3. The two-dimensional image forming apparatus as defined in Claim 1 wherein
  - the second light path does not include the enlarging and projection part.

4. The two-dimensional image forming apparatus as defined in Claim 2 wherein

the light path switching part is a rotation mechanism which makes rotate the light source so that the direction of the light emitted from the light source is changed.

5. The two-dimensional image forming apparatus as defined in Claim 3 wherein

the light switching part is a moving mechanism for moving the enlarging and projection part between a position which is located on a light path of the emitted light from the light source and a position which is not located on that light path.

6. The two-dimensional image forming apparatus as defined in Claim 1 wherein

the light path switching part includes:

a mirror; and

a moving mechanism for moving the mirror between a position at which the mirror reflects the light emitted from the light source, which position is on a light path of the emitted light from the light source, and a position which is not located on the light path of the light emitted from the light source.

7. The two-dimensional image forming apparatus as defined

in Claim 1, wherein

the second light path includes an enlarging optical system or a dispersion optical system, and

the emitted light is irradiated toward the outside of the apparatus via the enlarging optical system or the dispersion optical system when the light path of the emitted light from the light source is switched so that the emitted light propagates on the second light path.

8. The two-dimensional image forming apparatus as defined in Claim 1, wherein

the second light path includes the liquid crystal panel, and the emitted light is employed as a back light of the liquid crystal panel when the light path of the emitted light from the light source is switched so that the emitted light propagates on the second light path.

9. A two-dimensional image forming apparatus comprising:  
a light source;

a two-dimensional image forming part for forming a two-dimensional image by the light emitted from the light source;

an enlarging and projection part for enlarging and projecting the two-dimensional image formed by the two-dimensional image forming part;

a light path branching part for branching a path for the light emitted from the light source so that a part of the emitted light propagates on a first light path which includes both the two-dimensional image forming part and the enlarging and projection part, and the other part of the emitted light propagates on a second light path which does not include at least one of the two-dimensional image forming part and the enlarging and projection part.

10. The two-dimensional image forming apparatus as defined in Claim 9, wherein

the light branching part is disposed between the light source and the two-dimensional image forming part.

11. The two-dimensional image forming apparatus as defined in Claim 9, wherein

the light path branching part is disposed between the two-dimensional image forming part and the enlarging and projection part.

12. The two-dimensional image forming apparatus as defined in Claim 10 or 11, wherein

the light path branching part is a half mirror.

13. The two-dimensional image forming apparatus as defined

in Claim 1 or Claim 9, wherein  
the light source is an LED.

14. The two-dimensional image forming apparatus as defined  
in Claim 1 or 9, wherein  
the light source is a laser.